

REMARKS

Claims 1-2 and 6-19 are pending in the application. Claims 1-2 are amended to recite “a silicone-based pressure-sensitive adhesive tape”. Claims 3-5 were previously canceled.

New Claims 6-19 are added. Claims 6-7 find support, for example, at page 4, lines 19-20 of the specification as originally filed. Claim 8 finds support, for example, at page 5, line 11. Claim 9 finds support, for example, at page 6, lines 5-7. Claims 10-11 find support, for example, at page 6, lines 11-12. Claims 12-13 find support, for example, at page 6, lines 16-17. Claim 14 finds support, for example, at page 6, lines 23-26. Claim 15 finds support, for example, at page 7, lines 1-3. Claim 16 finds support, for example, at page 7, lines 4-6. Claim 17 finds support, for example, at page 7, lines 10-12. Claim 18 finds support, for example, at page 7, lines 13-23. Claim 19 finds support, for example, at page 10, line 1 and page 8, lines 15-16. No new matter is added.

Entry of the amendment is respectfully requested along with reconsideration and review of the claims on the merits.

Claim Rejections - 35 U.S.C. § 103

A. Claims 1 and 4¹ are rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over Mostafazadeh et al. in view of Lin et al. and Aizawa et al. ‘954 and as evidenced by High Performance Films.

¹ Claim 4 was previously canceled. Thus, Applicants kindly seek clarification of the rejected claims from the Examiner.

The Examiner recognizes that neither Mostafazadeh nor Lin discloses the type of adhesive used. Aizawa et al. assertedly discloses an adhesive used as a carrier for articles such as semiconductor chips for temporary fixing, where the adhesive has a low adhesive strength after heating since the adhesive expands on heating reducing the adhesive strength. The Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the adhesive of Aizawa et al. on the film of Lin et al. in the process of Mostafazadeh et al.

B. Claim 2 is rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over Mostafazadeh et al. in view of Lin et al., Aizawa et al., and High Performance Films as applied to Claim 1 above, and further in view of Oida et al. (WO 98/35382) (U.S. Patent 6,291,274 is considered an English language equivalent).

The Examiner recognizes that the references cited above do not disclose replacing the lead frame of Mostafazadeh et al. with a tape carrier. However, the Examiner cites Oida et al. as disclosing tape carriers can be used in place of lead frames when encapsulating chips in resin.

Applicants traverse each of these rejections.

As indicated above, Claims 1-2 are amended. Thus, Applicants claim silicone-based PSA tapes as a preferred embodiment of the present invention which attributes to unexpectedly superior results. Support for silicone PSAs can be found, for example, in the specification at page 6, lines 2-3, stating that it is preferred to use silicone PSAs having excellent heat resistance. Further support can be found in the Examples starting at page 8.

Thus, even if the references can be properly combined, which Applicants maintain is improper, the combination of these references still fails to render obvious at least the specific use of silicone-based PSA tapes which have excellent heat resistance in the methods of the present invention.

The Examiner applies Aizawa '954 as disclosing an adhesive used as a carrier for temporarily fixing semiconductor chips, where the adhesive has a low adhesive strength after heating since the adhesive expands on heating reducing the adhesive strength (col. 5, lines 3-8; col. 2, lines 50-53). However, Aizawa '954 does not expressly teach or even suggest the use of silicone PSAs. Instead Aizawa '954 discloses acrylic pressure-sensitive adhesives, rubber pressure-sensitive adhesives, and styrene-conjugated diene block copolymer pressure-sensitive adhesives (col. 3, lines 10-13; see also specific examples at lines 14-23).

Applicants point out that the primary reference to Mostafadezeh discloses the use of "an adhesive tape 170 such as polyimide as an adhesive layer." (col. 3, lines 45-46). The Examiner combines Mostafadezeh with Lin, which discloses the use of "a sheet film of flexible material such as Kapton tape, or may be another polyimide or polyester material." (col. 2, line 64 to col. 3, line 2).

Thus the combination of these references still fail to teach the preferred embodiment using a silicone-based PSA tape. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a).

AMENDMENT UNDER 37 C.F.R. § 1.114(c)

U.S. Application No. 09/719,422

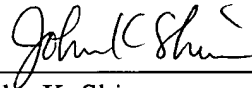
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Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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